valve opening when the pressure in the hot gas reheat circuit falls below a preselected value.

39. The system of claim 37 further including a controller wherein the controller controls:

the first means wherein the first means is a first valve selectively directing the flow of refrigerant discharged from the compressor to one of the hot gas reheat circuit and the cooling circuit;

the second means wherein the second means is solenoid valve selectively operable between a closed position wherein the first valve directs the flow of refrigerant to the hot gas reheat circuit and an open position wherein the first valve directs the flow of refrigerant to the cooling circuit,

the third means wherein the third means is a third valve operable in response to a signal from a sensor indicative of a first sensed condition, and

the fourth means for transferring excess refrigerant stored in the condenser to the hot gas reheat circuit in response to a second sensed condition in the hot gas reheat circuit.

40. The system of claim 39 wherein the fourth means includes a second sensor and a fourth valve.

41. The system of claim 40 wherein the fourth means wherein the second sensor detects a second condition within the reheat circuit and the fourth valve operates responsive to a signal from the second sensor indicative of the second condition.

42. The system of claim 41 wherein the first sensed condition is a refrigerant pressure in the hot gas reheat circuit and the controller opens the third valve in response to a signal from the sensor, the signal indicative that the pressure exceeds a first preselected value and closes the third valve in response to- the signal from the first sensor that the pressure is below a second preselected value wherein refrigerant is moved from the hot gas reheat circuit to the condenser when the third valve is open, and wherein the second sensed condition is a refrigerant pressure in the hot gas reheat circuit and the controller opens the fourth valve in response to a signal from the second sensor, the signal indicative that the pressure is below a third preselected value and closes the fourth valve in response to the signal from the second sensor that the pressure is above a fourth preselected value, wherein refrigerant is moved from the condenser to the hot gas reheat circuit when the fourth valve is open, the first preselected value being greater than the second preselected value, the third preselected value being less than the fourth preselected value, and the first and second preselected values being greater than the third and fourth preselected values.

43. A method of providing conditioned air to an interior space of a building, the method comprising the steps of:

providing a first cooling circuit comprising:

a compressor having a high-pressure discharge side and a low-pressure suction side, the compressor in fluid communication with a condenser, an evaporator in fluid communication with the condenser and with the compressor, an expansion device between the condenser and the evaporator, and a check valve to prevent the back flow of refrigerant into the condenser from a downstream side of the condenser;

providing a hot gas reheat circuit comprising:

a compressor having a high-pressure discharge side and a low-pressure suction side, the compressor in fluid communication with a reheat heat exchanger, an evaporator in fluid communication with the reheat heat exchanger and with the compressor, an expansion device between the condenser and the evaporator, and a check valve to prevent the back flow of refrigerant into the reheat heat exchanger from the cooling circuit when the cooling circuit is activated;

providing a first means for controlling a flow of a refrigerant in fluid communication with the discharge side of the compressor and switchable between a first position in which high pressure refrigerant flows through the hot gas reheat circuit and is blocked from flowing to cooling circuit and a second position in which the refrigerant flows to the cooling circuit and is blocked from entering the reheat circuit;

providing means for directing air from a space across the evaporator to cool and dehumidify the air and, when activated, the reheat exchanger to reheat the air;

providing a cooling by-pass circuit having fluid communication between the suction side of the compressor and the reheat heat exchanger including a second means for controlling the flow of remaining refrigerant out of the hot gas reheat circuit and switchable from a first position in which refrigerant flows from the hot gas reheat circuit when the first means for controlling is positioned to direct refrigerant to the cooling circuit and a second position in which the flow of refrigerant is blocked from leaving the hot gas reheat circuit when the first means for controlling is positioned to direct refrigerant to the reheat circuit;

providing a third means for controlling the transfer of excess refrigerant from the reheat circuit to the condenser in the cooling circuit when the first means for controlling is positioned to direct refrigerant to the reheat circuit;

directing excess refrigerant from the hot gas reheat circuit through the third means to the condenser when the hot gas reheat circuit is activated and the cooling circuit is inactivated and a sensed condition in the reheat circuit exceeds a first preselected value, and

terminating the flow of excess refrigerant from the hot gas reheat circuit through the third means when the sensed condition in the reheat circuit falls below a second preselected value.

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